



PATENT APPLICATION
Docket No: 147913.1

#2/10.5
4/2/03
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of)
Kevin E. Collier)
Serial No.: 10/056,190) Art Unit
Confirmation No.: 5044) 1723
Filed: January 25, 2002)
For: METHODS FOR CENTRIFUGALLY SEPARATING)
MIXED COMPONENTS OF A FLUID STREAM)

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR § 1.97

Assistant Commissioner for Patents
Washington, DC 20231

RECEIVED
JUN 28 2002
TC 1700

Sir:

Please find, pursuant to 37 CFR § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 CFR § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 USC §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 CFR § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 CFR §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof is also enclosed.

Statement of References Previously Disclosed
Under 37 CFR § 1.98(d)

All of the references cited on the attached Form PTO-1449, except US Patent No. 5,853,266, were previously submitted to or by the Office in United States Patent Application Serial Number 09/441,598, filed November 17, 1999, Patent No. 6,346,1069 B1, entitled CENTRIFUGAL PRESSURIZED SEPARATORS AND METHODS OF CONTROLLING SAME in the name of Kevin E. Collier, which is relied upon for an earlier filing date under 35 USC § 120. As such copies of the references cited on the PTO-1449, except US Patent No. 5,853,266, are not enclosed. Attached for the convenience of the Examiner is a copy of the Form PTO-1449 and Form PTO-892 filed in the parent application identified above.

Statement of Relevance of References Listed
Unaccompanied by English Translation
Under 37 C.F.R. § 1.98(a)(3)

In accordance with 37 C.F.R. § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

German Document No. 1 432 891 discloses what appears to be a centrifugal separator depicted in Figures 1-3.

German Document No. 23 36 564 discloses what appears to be a centrifugal separator depicted in Figures 1-3.

German Document No. DE 32 03 185 A1 discloses a rotor of a radial fan, with a round plate, a series of parallel vanes placed uniformly round its circumference, and a connecting ring, is produced by (1) taking a similar pattern with solid plate at one side plus the vanes but without the ring, (2) placing in a container with cylindrical interior and flat base, so that the vanes stand up from the base, (3) filling with sufficient molten wax to cover the edges of the solid plate to at least the thickness required for the fan plate and allowing to solidify, (4) withdrawing the pattern, (5) producing an annular groove in the base of the container to take the feet of the vanes, (6) casting the cavities with synthetic resin, allowing to harden, and melting out the wax. Thus, a one-piece rotor is produced in synthetic resin in a simple manner.

German Document No. DE 34 08 789 A1 discloses a centrifugal drum for separating oil from swarf, is supported at the end of a driving unit, to rotate about a horizontal axis. The drum has a conical part nearest the drive end, followed by a short cylindrical part and an outer shorter conical part. The second part has holes around it, for discharging oil and air, while swarf is discharged from the open end of the conical outer part. The mixture is fed into the innermost part of the first conical section by a sloping channel connected to a supply hopper and carries blades on its sloping surface, producing an air current. The air escapes round the end of a vertical baffle plate which almost closes

the first section. The outer part carries outwardly projecting blades producing an air flow inside a hollow casing enclosing the down. Efficiency of separation is improved by the air current produced.

German Document No. 1 113 184 discloses a centrifugal drum provided at its open end with inwardly extending resilient flaps, fingers, etc. (6) which are deflected into a direction parallel with or incline relative to the drum axis by the material introduced into withdrawn from the drum.

German Document No. 723 672 discloses what appears to be a weir separation system in Figure 1.

German Document No. 40702 discloses what appears to be a centrifugal separator depicted in Figures 1-7.

German Document No. 610 608 discloses what appears to be a centrifugal separator depicted in Figures 1 and 2.

German Document No. 321 855 discloses what appears to be a centrifugal separator depicted in Figures 1-3.

French Document No. 672.184 discloses what appears to be a weir separation system depicted in Figures 1 and 2.

French Document No. 826.502 discloses what appears to be a centrifugal separation system depicted in Figures 1 and 2.

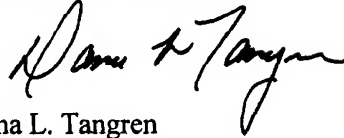
Russian Document No. 957929 discloses a separator comprising of an inverted conical rotor, which has in the upper part a hollow conical cone and a cylindrical disc with perforated wells, and in the lower part radial blades. The arrangement eliminates counter-current flows of liquid and ensures laminar flow conditions in the lower part of the rotor, thereby preventing remixing of the separated fractions and improving the separation efficiency. The rotor is attached to the hollow shaft (6) which is carried by the bushes (7,8) on the hollow shaft (1) and is driven by the pulley (18). Liquid enters through radial holes in the upper part of the shaft and is thrown by the blades attached to the cone (11) on to the walls of the rotor (19). The less dense liquid enters the gap between the cone (11) and the disc (12) and is discharged through radial holes in the shaft (6) and the lower part of shaft (1). The heavier fraction enters the space between the disc (12) and the bottom of the rotor (14). The liquid is deflected by the ring (10) from the rotor walls and is separated from the impurities which collect in the bottom of the rotor. The liquid rises through the holes in the perforated wells (13) and is discharged along with the major liquid flow. The holes facing the shaft are larger than the others.

Polish Document No. 66 414 appears to disclose a centrifugal separator depicted in Figure 1.

Polish Document No. 129 042 appears to disclose a separation system depicted in Figures 1-3.

Dated this 18th day of June 2002.

Respectfully submitted,



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PATENT APPLICATION

Docket No: 14794.3.1

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Kevin E. Collier

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TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Transmitted herewith for filing and pursuant to 37 C.F.R. § 1.97 is an Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

- ☒ Statement of relevance of selected cited references not in the English language which are not translated.
- ☐ Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.
- ☒ Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120.

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

- ☒ Form PTO-1449 listing 120 references submitted for consideration.
- ☒ A copy of one (1) of the references listed on the Form PTO-1449.
- ☐ English translations of ____ (____) of the references listed on the Form PTO-1449 which are not in the English language.
- ☒ Copies of the following documents from the prosecution of a previous, related application:
 - ☒ Form PTO-1449; and
 - ☒ Form PTO-892

B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Information Disclosure Statement is being filed within one (1) of the following four (4) time periods:

- I. ☒ Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.
- II. ☐ Following the latter of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed:
 - ☐ Promptness Certification; or
 - ☐ Check No. _____ in the amount of \$180.00 constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
- III. ☐ After the mailing of a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
 - ☐ Promptness Certificate;
 - ☐ Petition for Consideration; and

____ Check No. in the amount of \$ _____ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

IV. ____ After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:

____ Petition to Withdraw from Issue; and

____ Check No. _____ in the amount of \$ _____ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 23-3178. A duplicate copy of this letter is enclosed.

X Any fee required in relation to filing of this letter or any documents transmitted therewith.

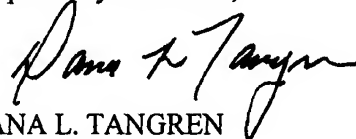
____ The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e).

____ The submission fee set forth in 37 C.F.R. § 1.17(p).

____ The petition fee set forth in 37 C.F.R. § 1.17(i)(1).

Dated this 18th day of June 2002.

Respectfully submitted,



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PATENT TRADEMARK OFFICE

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Enclosures

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